### Ohio's 2-Year to 4-Year Transfers: Completion Rates & Regional Differences

Shoumi Mustafa

September 2016

### Section 3333.16.C in the 2016-17 budget bill, relevant research questions, and the answers

No later than December 1, 2018, associate degrees granted by Ohio public institutions of higher education will transfer and apply to the completion of baccalaureate degrees in Ohio public 4-year institutions . . . . **Section 3333.16.C**, 2016-17 Budget Bill

#### **Questions:**

What are the six-year graduation rates of our 2year to 4-year transfers? What factors breed success – the characteristics of the students, of the regions, or of the institutions? Do transfer students, on average, complete more hours at graduation?

#### **Our results:**

Almost half of Ohio's 2year to 4-year public institution transfers graduate in six years. Graduation rates are higher for students who transfer to institutions within the same region. Also, transfer students do complete more hours.

#### Section 3333.16.C in the 2016-17 budget bill

- The Chancellor of the Ohio Department of Higher Education will ensure, no later than December 1, 2018, that any associate degree granted by Ohio public institutions of higher education will transfer and apply to the completion of baccalaureate degrees in Ohio public 4-year institutions in equivalent fields without unnecessary duplication and institutional barriers.
- Transferred associate degrees will apply to the degree objective in the same manner as equivalent coursework completed by students at the receiving institution.

According to section 3333.16.C in the 2016-17 budget bill passed by the Ohio General Assembly and signed by Governor Kasich.

#### Broad questions on the topic

- Section 3333.16.C paves the way for increased efficiencies in degree production, along with a focus on enhanced equality between transfer and native students at 4-year universities.
- Against the backdrop, it is important that we know what proportion of transfer students currently go on to receive baccalaureate degrees from 4-year universities.
- The knowledge of the factors that influence graduation is especially important as we can draw on the success of the institutions, of the regions where the institutions are located, and of the students themselves.
- It is also important to know how transfers and native students at 4-year universities, both eventual graduates, compare with respect to the number of hours they completed.

#### Our specific research questions

- What are the six-year graduation rates of transfer students?
  - We calculate six-year graduation rates for Ohio 2-year public institution entrants who transfer to Ohio public 4-year university main campuses.
- What influences the graduation rates of transfer students the characteristics of the students, their regions, or the institutions?
  - We answer the question by,
    - Comparing graduation rates among Ohio regions.
    - Comparing graduation rates among Ohio institutions.
    - Comparing demographic characteristics among regions and among institutions.
- Do transfer students, on average, complete more hours at graduation relative to non-transfer (native) students at 4-year institutions?
  - We compare completed hours at graduation between students with and without Associate degrees to answer the question.

#### Definitions of transfer

**OATN definition:** A student is defined as a transfer if she makes a clean break from the college of attendance in an academic year. The college of attendance is defined as the one where the student attended the maximum credit hours in the year. A clean break is occurs in one of the three ways:

- 1. The student formally transfers credits from her college of attendance to another institution.
- 2. The student does not transfer credit to another institution but attends a single institution of higher education that is different from the original college of attendance.
- 3. The student does not transfer credit to another institution but attendance multiple institutions and attempts the maximum number of credit hours in an institution other than the original college of attendance.

### Features of the sample: FY2008-09 Transfers

	All of deals		Year of first entry		
	All students	FY2005-06	FY2006-07	FY2007-08	
Number of students	2,701	794	1,047	860	

- Our sample comprises 2,701 students who transferred from Ohio public 2-year institutions to public 4-year institutions in FY2008-09.
- They had started as first-time, full-time students in the 2-year institution in FY2005-06, FY2006-07, and FY2007-08.
  - First-time college students with accumulated college credit (earned as dual-enrollment high-school students) are included in the sample.

#### Graduation rates: FY2008-09 Transfers

	All about a saba		Year of first entry	
	All students	FY2005-06	FY2006-07	FY2007-08
Number of students	2,701	794	1,047	860
Graduated in six or fewer years	49.9%	44.5%	55.1%	48.6%
Graduated in six or more years	63.4%	69.6%	66.7%	53.6%

- Almost half of the FY2007-08 transfers graduated in six years.
- Six-year graduation rates are very high for the FY2006-07 entrants. This could be due to the looming conversion of academic calendar in FY2012-13; the six-year mark for them is FY2011-12.
- Graduation rates are significantly higher when time horizon is extended beyond six years.

## Graduation rates by Associate degree status: FY2008-09 Transfers

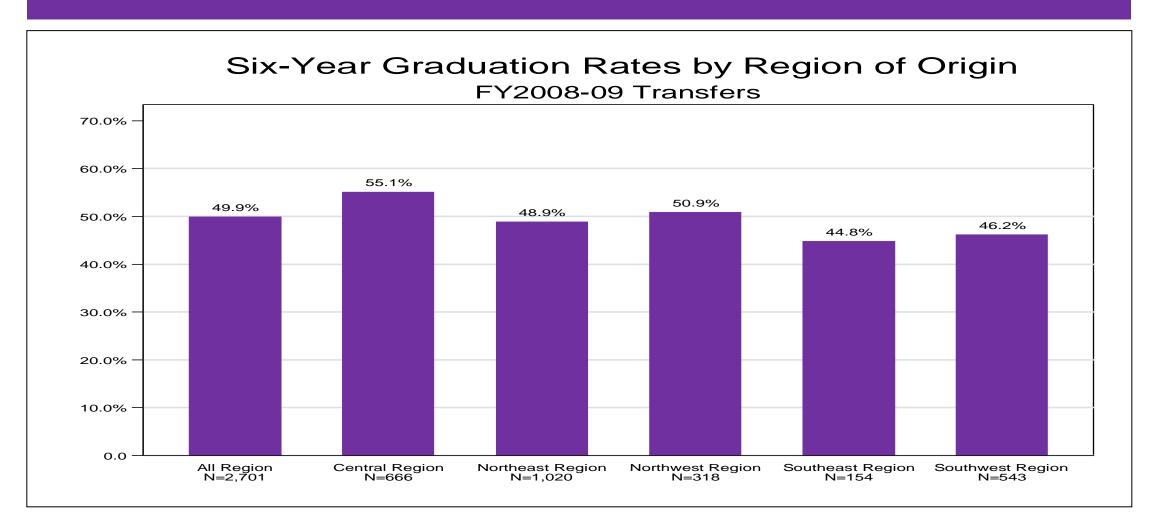
	All students		Year of first entry		
		FY2005-06	FY2006-07	FY2007-08	
Received an Associated Degree	783	370	311	102	
Six-Year graduation rates: By Associate	Six-Year graduation rates: By Associate degree				
Students with Associate degrees	50.6%	50.3%	55.3%	37.3%	
Students without Associate degrees	49.6%	39.4%	55.0%	50.1%	

- More students from the early cohorts received Associate degrees in the first two years.
- Associate degree recipients from FY2005-06 have a 10.9 point higher rate of graduation. Importantly, 86% of those students received their Associate degrees by the year of transfer.
- However, among the FY2007-08 students with associate degrees, only 27% received their degrees by the year of transfer.

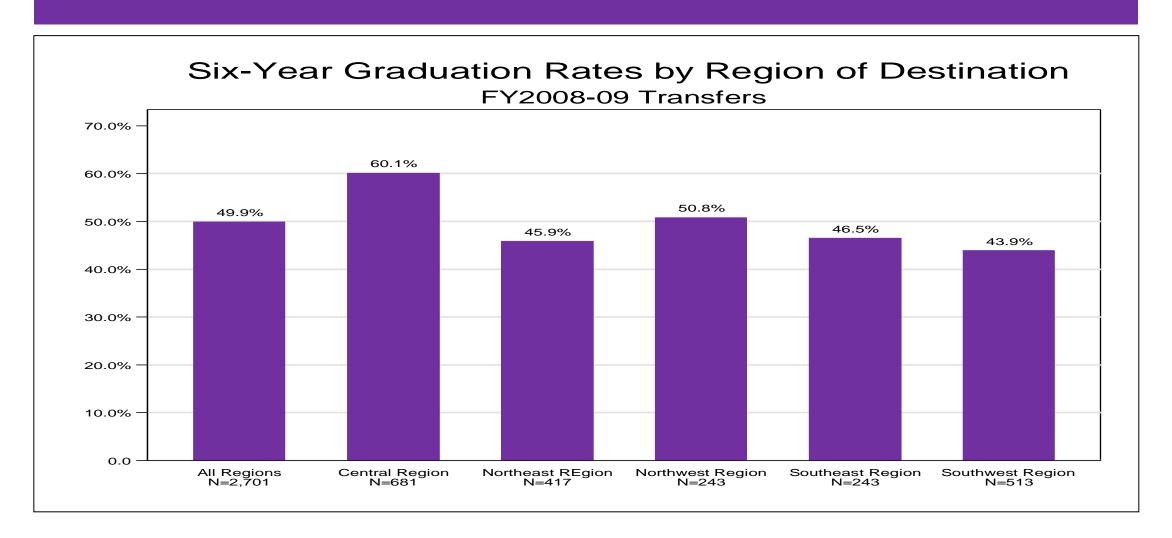
### FY2008-09 regional transfer matrix

From	All regions	Central	Northeast	Northwest	Southeast	Southwest
Central	666	511	30	25	57	43
Northeast	1,020	68	777	96	59	20
Northwest	318	23	10	263	3	19
Southeast	154	15	19	5	91	24
Southwest	543	64	11	28	33	407

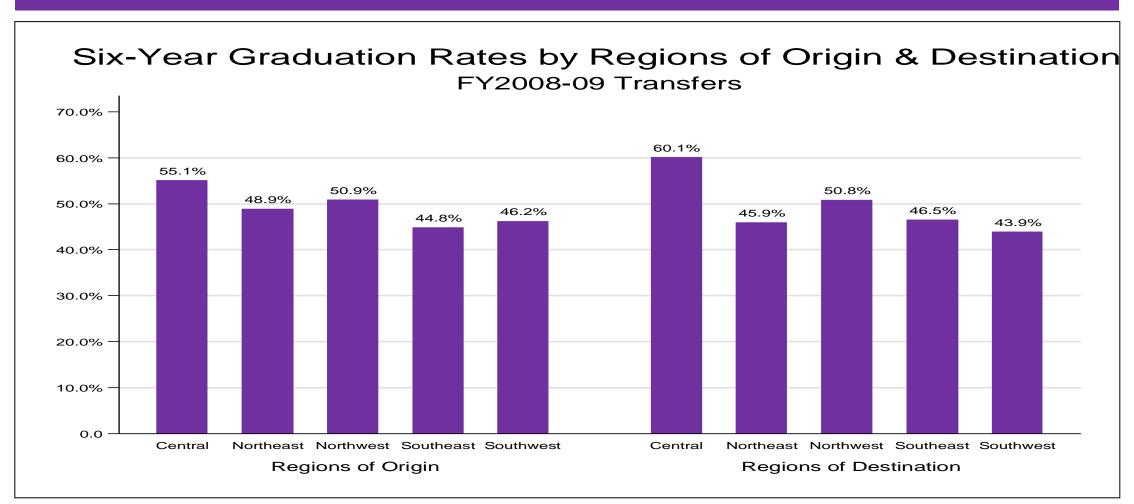
## Six-year graduation rates by region of origin: FY2008-09 transfers



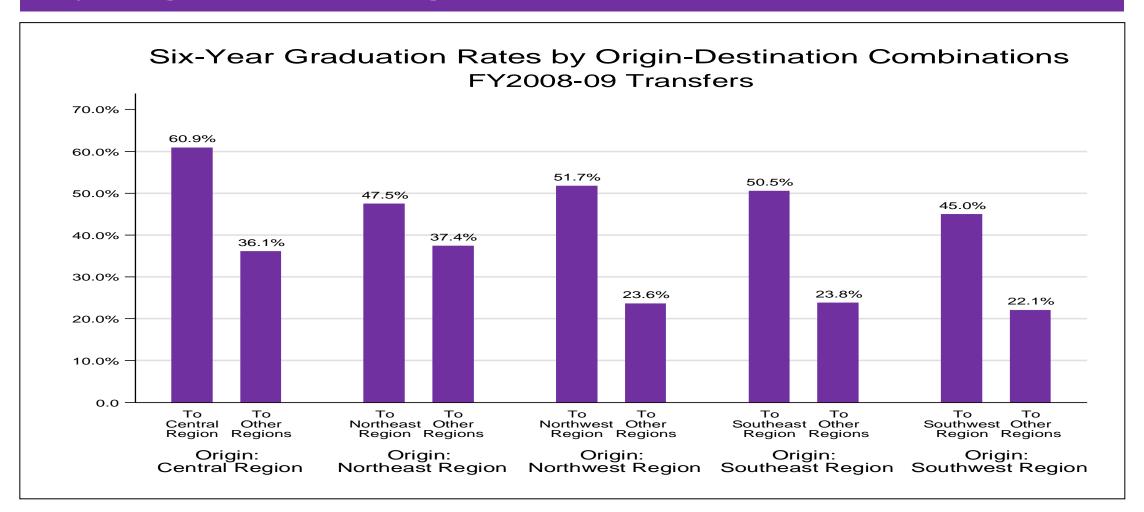
### Six-Year graduation rates by region of destination: FY2008-09 transfers



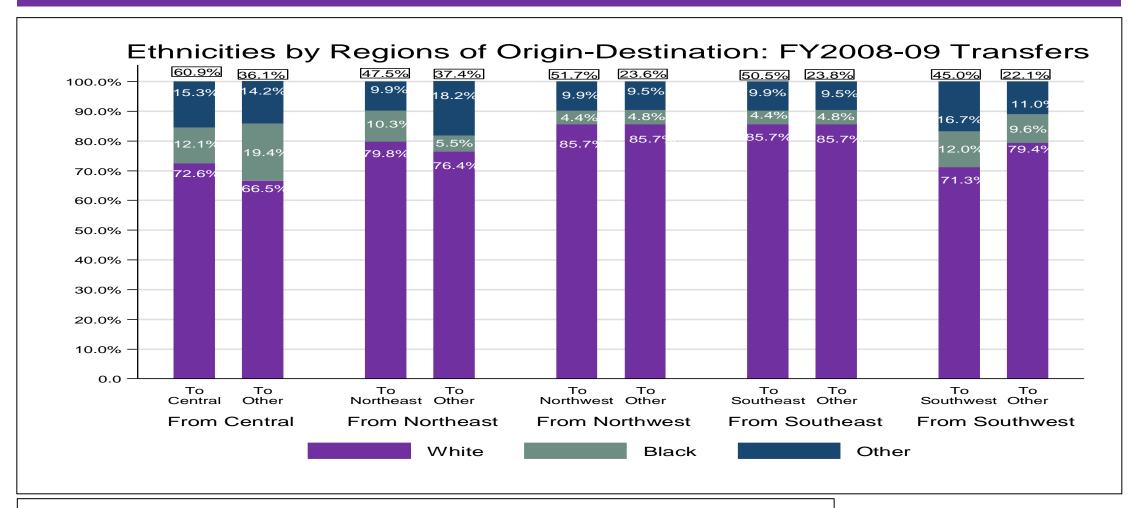
### Six-year graduation rates: By regions of origin & regions of destination



# Six-year graduation rates: By regions of origin-destination combinations

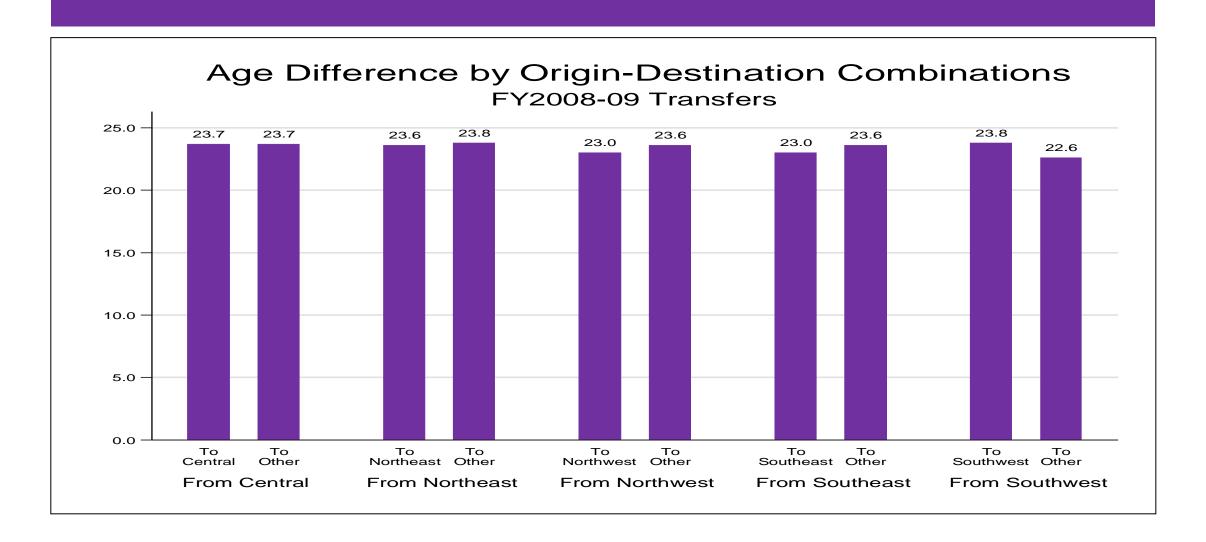


### Are ethnicities important? They appear not

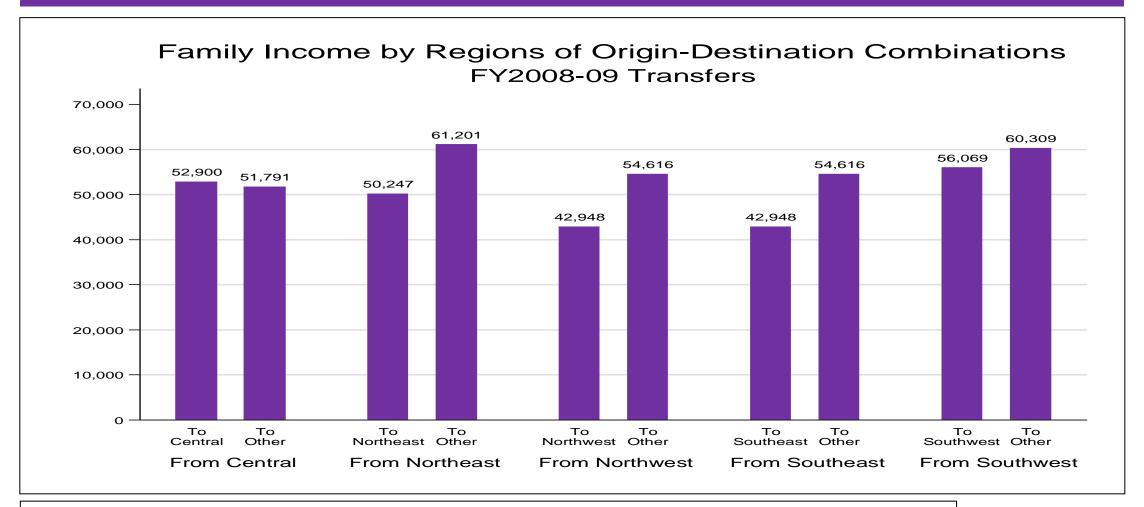


Note: Percentage figures at the top of the bars represent relevant six-year graduation rates.

### Students' age at the time of the transfer



### Family income

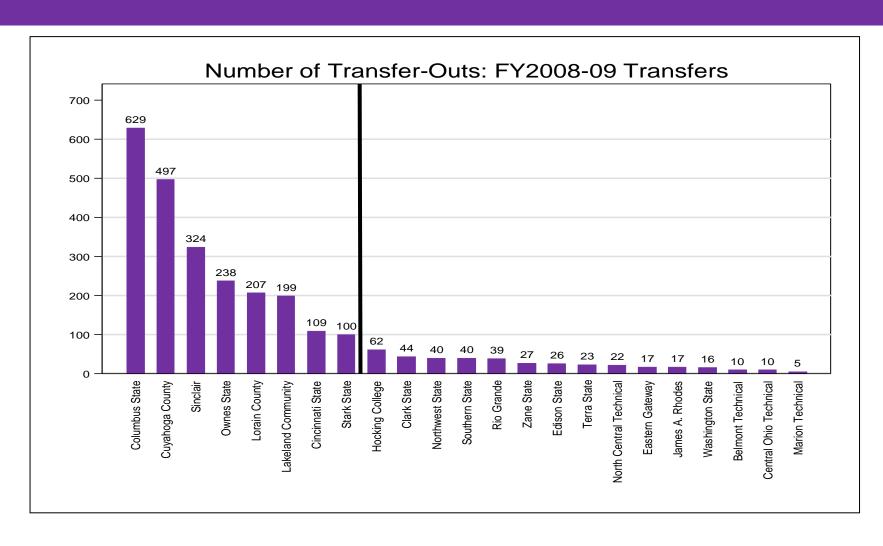


Family income, from Institutional Student Information Record (ISIR) is expressed in 2010 constant dollars.

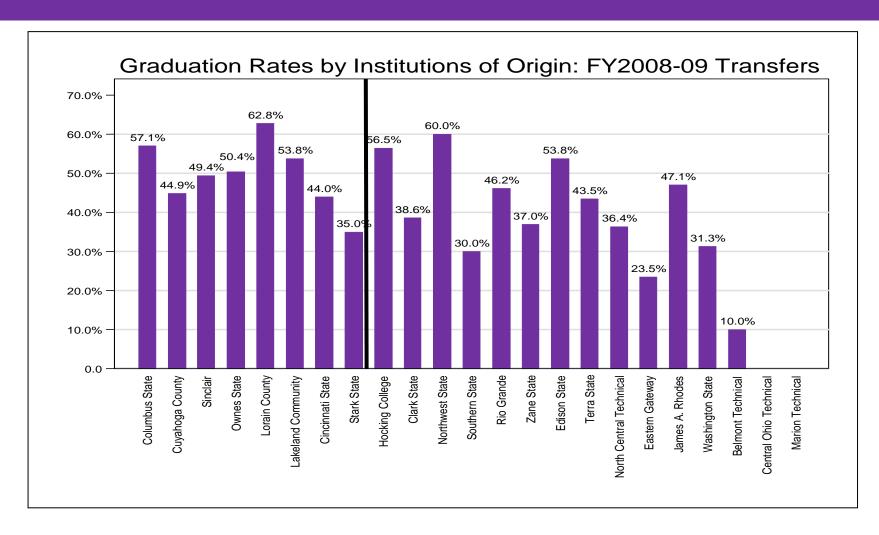
### Staying in the region helps graduation

- Almost one-half of the students transferring from a 2-year to a 4-year public institution of higher education in Ohio goes on to graduate in six years (from the time of entering the 2-year institution as a full-time, first-time student).
- Graduation rates show small variations across regions of origin (where students started) and regions of destination (where students transferred)
- However, graduation rates vary widely depending on whether students transfer to institutions
  in the same region or to other regions in the state.
- For example, 60.9% of the transfer students from the Central region graduate in six years if they transfer to 4-year institutions in the Central region; only 36.1% of those transferring to institutions outside of the Central region graduated.
- The differences in graduation rates between in-region and out-of-region transfers cannot be explained well by differences in ethnicity, gender, age or family income.

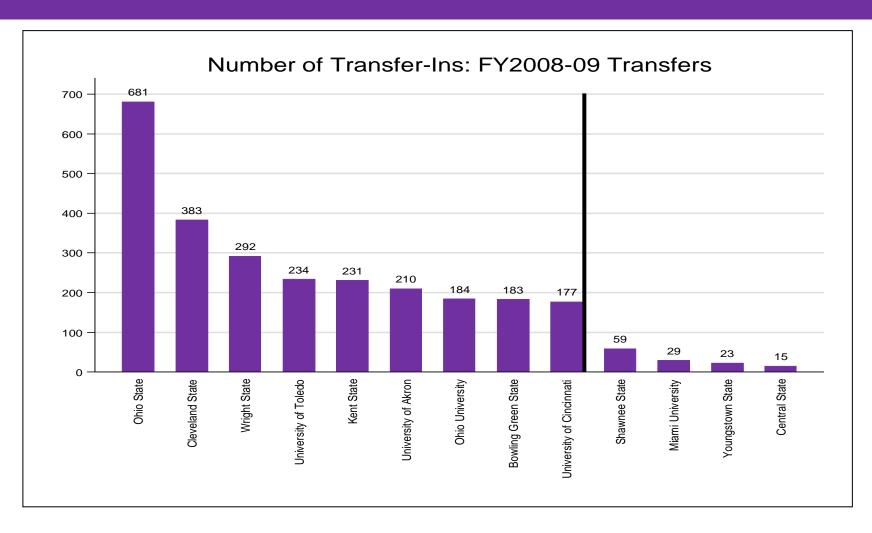
### Number of transfer-outs by institution of origin: FY2008-09 transfers



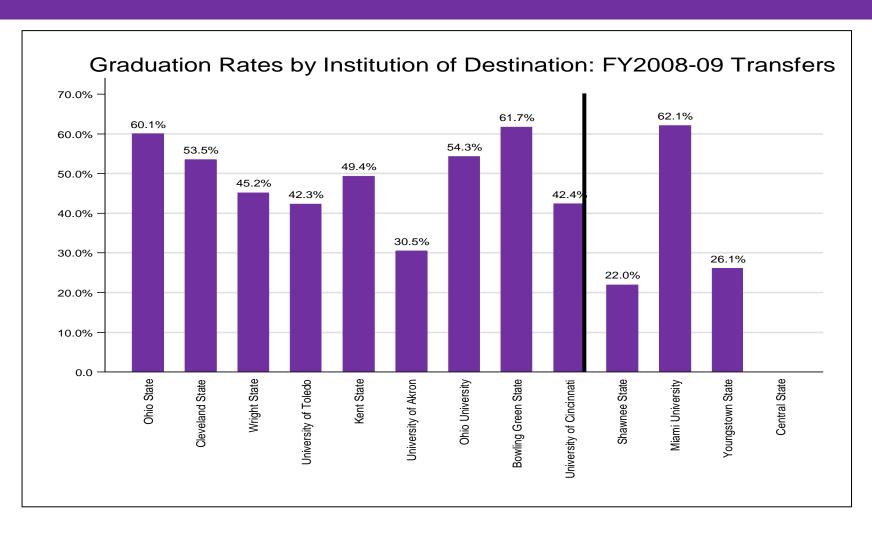
## Graduation rates by institution of origin: FY2008-09 transfers



# Number of transfer-Ins by institution of destination: FY2008-09 transfers



## Graduation rates by institution of destination: FY2008-09 transfers



# Graduation Rates by Origin & Destination: Transfers from FY2008-08

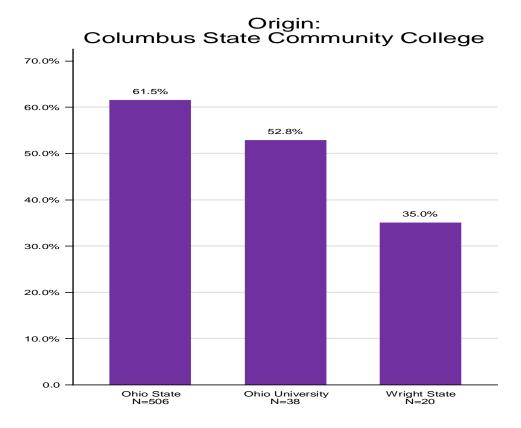
Origin	Transfer-outs	Destination	Transfer-ins	Graduation Rate
		Ohio State University	506	61.5%
Columbus State Community College	629	Ohio University	38	52.8%
·	, 3	Wright State University	20	35.0%
		Cleveland State University	219	49.3%
		University of Akron	90	31.1%
Cuyahoga Community College	497	Kent State University	80	47.5%
	University of Toledo	28	21.4%	
		Ohio State University	27	58.6%

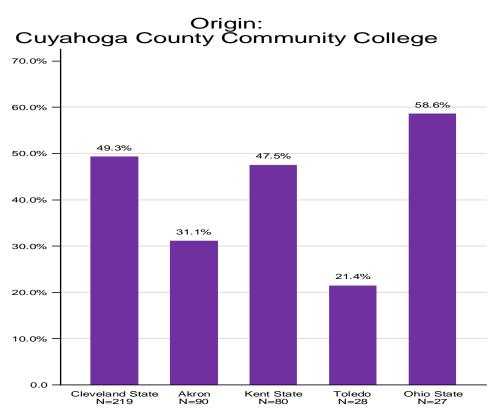
# Graduation Rates by Origin & Destination: Transfers from FY2008-08

Origin	Transfer-outs	Destination	Transfer-ins	Graduation Rate
		Wright State University	195	48.7%
Sinclair Community College	324	Ohio State University	45	64.4%
		University of Cincinnati	34	38.2%
Owens State Community	222	University of Toledo	133	43.6%
College	238	Bowling Green State	77	59.7%
Lorain County Community	207	Cleveland State University	65	66.2%
College	207	Kent State University	46	73.9%
Cincinnati State	109	University of Cincinnati	100	44.4%
Ctoul, Ctoto	100	University of Akron	40	38.6%
Stark State	100	Kent State University	39	30.8%

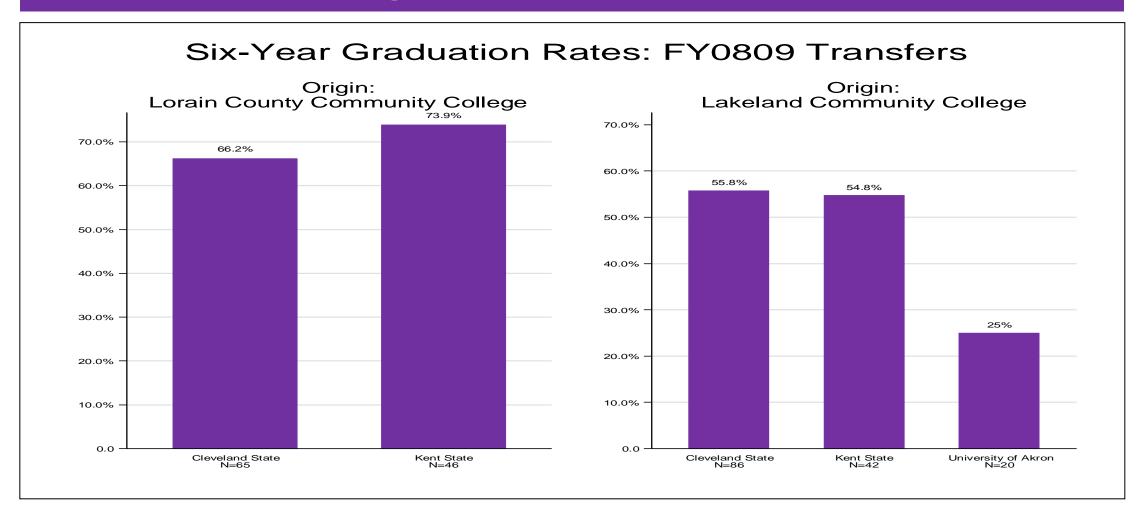
### Comparison of graduation rates: Same origin different destinations

#### Six-Year Graduation Rates: FY0809 Transfers

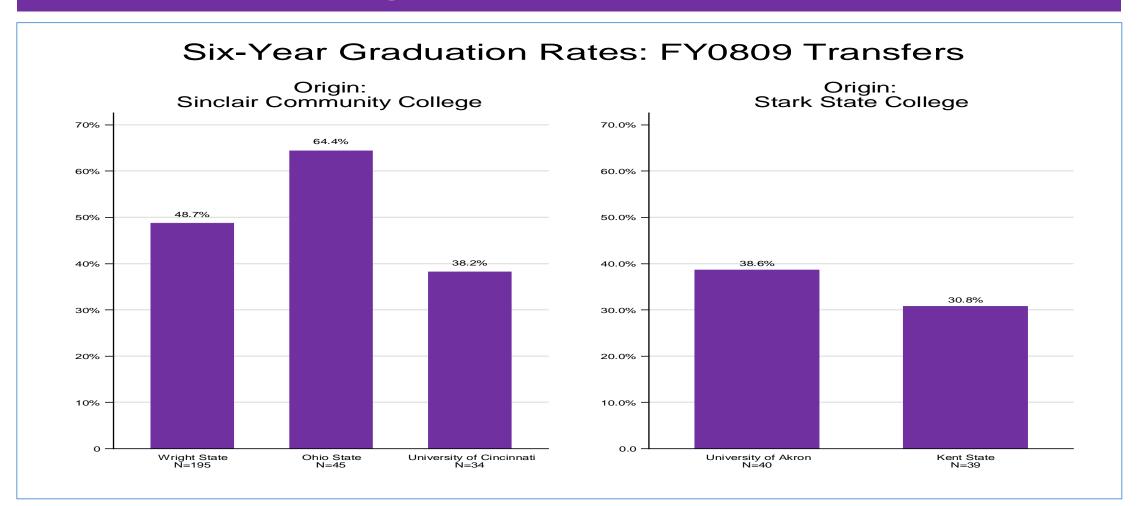




### Comparison of graduation rates: Same origin different destinations

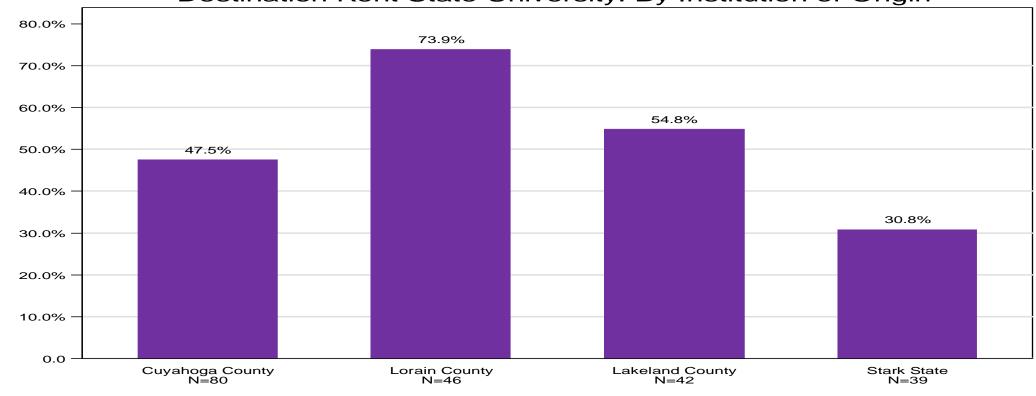


### Comparison of graduation rates: Same origin different destinations



### Comparison of graduation rates: Same destination different origins





### Comparison of Demographics: Columbus State to Ohio State & Ohio University

Origin	Destinations			
Columbus State Community	Ohio State University	Ohio University		
Number of students	506	38		
Six-Year Graduation Rates	61.5%	52.6%		
Black	12.0%	8.0%		
White	72.0%	84.0%		
Hispanic	2.0%	3.0%		
Asian	7.0%	5.0%		
Male	56.0%	58.0%		
Age at entry	20.8	21.7		
Age at transfer	23.7	24.3		
Average family income	\$52,843	\$56,533		

### Comparison of Demographics: Cuyahoga Community to Cleveland, Akron, Kent State, Toledo & Ohio State

Origin		Destinations			
Cuyahoga Community College	Cleveland	Akron	Kent State	Toledo	Ohio State
Number of students	219	90	80	28	29
Six-Year Graduation Rates	49.3%	31.1%	47.5%	21.4%	58.6%
Black	20.1%	17.8%	25.0%	46.4%	3.4%
White	60.3%	78.9%	66.3%	50.0%	82.8%
Hispanic	3.2%	1.1%	3.8%	0.0%	3.4%
Asian	6.8%	1.1%	1.3%	3.6%	0.0%
Male	46.1%	52.2%	57.5%	71.4%	58.6%
Age at entry	21.7	19.2	20.2	18.6	19.0
Age at transfer	24.8	22.0	22.8	21.2	21.7
Average family income	\$39,865	\$59,467	\$44,095	\$45,480	\$50,687

### Comparison of Demographics: Lorain County to Cleveland & Kent State

Origin	Destinations			
Lorain County Community College	Cleveland State	Kent State		
Number of students	N=65	N=46		
Six-Year Graduation Rates	66.2%	73.9%		
Black	3.1%	2.2%		
White	84.6%	93.5%		
Hispanic	3.1%	-		
Asian	-	4.3%		
Male	38.5%	43.5%		
Age at entry	20.1	18.6		
Age at transfer	23.3	21.9		
Average family income	\$57,944	\$61,640		

### Comparison of Demographics: Lakeland to Cleveland, Kent State & Akron

Origin	Destinations				
Lakeland Community College	Cleveland State	Kent State	Akron		
Number of students	N=86	N=42	N=20		
Six-Year Graduation Rates	55.8%	54.8%	25.0%		
Black	5.8%	0.0%	5.0%		
White	86.0%	90.5%	90.0%		
Hispanic	1.2%	2.4%	-		
Asian	1.2%	2.4%	-		
Male	43.0%	50.0%	85.0%		
Age at entry	21.2	19.3	18.5		
Age at transfer	24.3	22.0	21.4		
Average family income	\$53,911	\$60,119	\$74,192		

### Comparison of Demographics: Owens State to Toledo & Bowling Green

Origin	Destinations			
Owens State Community College	University of Toledo	Bowling Green State		
Number of students	N=133	N=77		
Six-Year Graduation Rates	43.6%	59.7%		
Black	17.3%	5.2%		
White	68.4%	92.2%		
Hispanic	3.8%	1.3%		
Asian	3.8%	<del>-</del>		
Male	54.9%	55.8%		
Age at entry	21.3	20.4		
Age at transfer	24.1	23.4		
Average family income	\$43,734	\$53,570		

# Comparison of Demographics: Sinclair to Wright State & Ohio State

Origin	Destinations			
Sinclair Community College	Wright State University	Ohio State		
Number of students	N=195	N=45		
Six-Year Graduation Rates	48.7%	64.4%		
Black	9.2%	11.1%		
White	68.7%	75.6%		
Hispanic	1.5%	-		
Asian	3.6%	11.1%		
Male	50.3%	51.1%		
Age at entry	21.1	19.5		
Age at transfer	24.1	22.3		
Average family income	52,504	53,639		

### Destination Kent State: Origin Cuyahoga Community, Lorain, Lakeland & Stark College

Destination	Institution of Origin			
Kent State	Cuyahoga Community	Lorain County	Lakeland Community	Stark College
Number of students	N=80	N=46	N=42	N=39
Six-Year Graduation Rates	47.5%	73.9%	54.8%	30.8%
Black	25.0%	2.2%	0.0%	10.3%
White	66.3%	93.5%	90.5%	82.1%
Hispanic	3.8%	-	2.4%	2.6%
Asian	1.3%	4.3%	2.4%	0.0%
Male	57.5%	43.5%	50.0%	46.2%
Age at entry	20.2	18.6	19.3	20.7
Age at transfer	22.8	21.9	22.0	23.1
Average family income	\$44,095	\$61,640	\$60,119	\$44,712

#### Large-scale bilateral movements help graduation

- Eight 2-year institutions (out of 23) account for more than 80% of 2-year college students transferring to a 4-year main campus in a given year.
- Transfer students from the large 2-year institutions have higher rates of graduation on average.
- With small exceptions, students transferring to 4-year institutions with large enrollments also have higher rates of graduation.
- Six-year graduation rates of transfer-outs from a particular 2-year institution are usually the highest when they transfer to one or two particular 4-year institutions.
- Demographic factors may explain some of the success inherent in the large-scale bilateral transfer movements but not all.
- What explains very high success rates of transfer students to institutions like the Ohio State University?
  - Possible development of specific practices.
  - Admission policies students with certain academic characteristics are admitted.

### Results: Completed hours at graduation

- Sample: Degree recipients in FY2011-12.
- Why pick FY2011-12? We wanted to make sure that reductions in degree hour requirements were not in force.
- However, we may have picked more students with degrees because FY2011-12 saw more students graduate (as calendar conversion loomed).
- Students with Associate degrees: 4,073 students
  - Attempted hours: 162.2
  - Completed hours: 146.2
- Students without Associate degrees: 16,075 students
  - Attempted hours: 153.1
  - Completed hours: 137.1

#### What breeds success?

- Almost one-half of the students transferring from 2-year to 4-year public institutions of higher education in Ohio goes on to graduate in six years (from the time of entry).
- Graduation rates show wide variations between groups of students who transfer to institutions in the same region very high rates and those who transfer to other regions in the state.
- Demographics do not explain well the differences in graduation rates between the in-region and out-of-region transfers.
- So what matters? Bilateral movements from one particular 2-year institution to one or two specific 4-year institutions are usually affiliated with the highest rates of graduation.
- Comparisons of more and less successful origin-destination combinations suggest multiple possibilities:
  - Institutions in successful bilateral links may have developed specific practices.
  - Institutions in successful bilateral links may attract and admit high-performing students.